Category 6A S/FTP EuroClass Dca Cables

Datasheet: GD103529v9

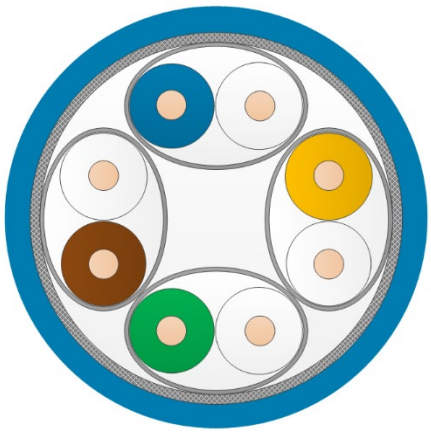
APPLICATION

Leviton Category 6A S/FTP cables exceed Category 6A performance standards. They are rated to 500MHz and are suitable for use in all Class E_A structured wiring cable systems. The applications supported include 10 Gigabit Ethernet, Gigabit Ethernet, Power over Ethernet, and broadband video transmissions at frequencies up to 500MHz.

FEATURES AND BENEFITS

- 23 AWG solid annealed copper wire
- 4 twisted pairs individually screened and cabled together – providing EMI immunity
- Overall braided screen – for improved shielding efficiency, increased mechanical robustness and heat dissipation
- Designed to support all Class E_A protocols including 10GBASE-T
- HFFR-LS* material meets the requirements of the Construction Products Regulation (CPR) EuroClass Dca
- Blue† jacket to identify EuroClass level Dca.
- Included in the Leviton Limited 25-Year System Warranty when used in conjunction with Leviton copper connectivity. System warranties are available for qualified projects installed by certified contractors

** Halogen Free Flame Retardant – Low Smoke*
† Also available in a range of non-standard colors



AC6S/FTP-Dca

STANDARDS

- Designed and constructed to give optimum electrical performance to the following standards:
  - ISO/IEC 11801 Class E_A, IEC 61156-5
  - EN 50173-1 and EN 50288-10-1
  - ANSI/TIA 568.2-D
- Supports 10GBASE-T and meets the design requirements of 802.11ac wireless. Recommended for PoE standards:
  - IEEE 802.3bt PoE Type 1 (15.4 Watts) formerly 802.3af and IEEE 802.3bt PoE Type 2 (30 Watts) formerly 802.3at
  - IEEE 802.3bt PoE Type 3 (60 Watts) and IEEE 802.3bt PoE Type 4 (90 Watts)
  - Cisco UPoE (60 Watts), Cisco UPoE+ (90 Watts) and Power over HDBaseT™ PoH (95 Watts)

REACTION TO FIRE

CHARACTERISTIC	STANDARD	RATING
Single Cable Flame Rating	IEC 60332-1-2	Pass
Bundled Cable Flame Rating	EN 50399 20.5kW source	Dca
Smoke Production	EN 50399	s1
Flaming Droplets/Particles	EN 50399	d1
Acid Gas Emission/Acidity	EN 50267-2-3	a1
Classification/EuroClass	EN 13501-6	Dca s1 d1 a1

PRIMARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Conductor Loop Resistance	Max 19 Ω/100m	14Ω/100m
Conductor Resistance Unbalance	Max 2%	0.1%
Insulation Resistance	>5GΩ.km	>50GΩ.km
Dielectric Strength	2500 Vdc/2secs	Pass

SECONDARY ELECTRICAL PARAMETERS

CHARACTERISTIC	SPECIFICATION	TYPICAL PERFORMANCE @ 20°C
Velocity of Propagation	<534nsec/100m @ 100MHz	413nsec/100m @ 100MHz
Delay Skew	Max 45nsec/100m @ 100MHz	4nsec/100m @ 100MHz
Mean Characteristic Impedance	100Ω +/- 5Ω @ 100MHz	100Ω ± 3Ω @ 100MHz
Coupling Attenuation	Type 1	90dB
Transfer Impedance	Grade 1	8mΩ/m @ 10MHz

ELECTRICAL PERFORMANCE

Frequency (MHz)		**1**	**4**	**10**	**20**	**100**	**200**	**250**	**500**	**550**
Insertion Loss (dB/100m)	Standard (Max)	2.1	3.8	5.9	8.4	19.1	27.6	31.1	45.3	N/A
	Typical	***1.9***	***3.5***	***5.5***	***7.8***	***18.0***	***25.7***	***28.7***	***41.1***	***43.1***
NEXT (dB)	Standard (Min)	75.3	66.3	60.3	55.8	45.3	40.8	39.3	34.8	N/A
	Typical	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***98.2***
PSNEXT (dB)	Standard (Min)	72.3	63.3	57.3	52.8	42.3	37.8	36.3	31.8	N/A
	Typical	***97.0***	***97.0***	***97.0***	***97.0***	***97.0***	***96.1***	***95.7***	***92.5***	***88.9***
ACR-F (dB)	Standard (Min)	68.0	56.0	48.0	42.0	28.0	22.0	20.0	14.0	N/A
	Typical	***103.9***	***103.9***	***102.8***	***101.8***	***89.4***	***78.2***	***74.6***	***65.2***	***62.5***
PSACR-F (dB)	Standard (Min)	65.0	53.0	45.0	39.0	25.0	19.0	17.0	11.0	N/A
	Typical	***97.3***	***98.2***	***97.1***	***94.8***	***83.6***	***72.5***	***68.6***	***59.9***	***56.5***
Return loss (dB)	Standard (Min)	20.0	23.0	25.0	25.0	20.1	18.0	17.3	17.3	N/A
	Typical	***27.0***	***33.1***	***34.0***	***34.3***	***39.3***	***38.4***	***34.4***	***28.7***	***27.8***
PSANEXT (dB)	Standard (Min)	67.0	67.0	67.0	67.0	62.5	58.0	56.5	52.0	N/A
	Typical	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
PSAACR-F (dB)	Standard (Min)	67.0	66.2	58.2	52.2	38.2	32.2	30.2	24.2	N/A
	Typical	***98.1***	***96.5***	***94.5***	***92.2***	***82.0***	***73.9***	***70.6***	***57.0***	***54.6***

- *The standard values shown are the most demanding taken from the relevant IEC, TIA and EN specifications. These standard values are the maximum permittable for Insertion loss and the minimum permittable for other parameters*
- *N/A – Not Applicable*

INSTALLATION

Temperature *(Installation)*	0°C to +50°C
Temperature *(Operation)*	-20°C to +75°C
Max Tensile Load *(Installation)*	10kg
Segregation Class	Class D

Min Bend Radius *(Installation)*	8 x Outer Diameter
Min Bend Radius *(Operation)*	4 x Outer Diameter
Field Test NVP Value	0.80

STANDARD PACKAGING SPECIFICATIONS

Part Number	Packaging Length (m)	Standard Color	Nominal Cable Diameter *(mm)*	Nominal Cable Weight *(kg/km)*	Reel Size *Flange Diameter x Width (mm)*	Gross Weight *(kg/Item)*	Items Per Pallet
AC6S/FTP-Dca-500BU	500	Blue †	7.0	49.5	400 x 390	27.2	12
AC6S/FTP-Dca-1000BU	1000	Blue †	7.0	49.5	600 x 405	56.0	4

†Also available in a range of non-standard colors

COUNTRY OF ORIGIN

COO: United Kingdom

*"Leviton is **dedicated** to **designing**, **developing** and **manufacturing** sustainable **high performance** structured cabling and specialty **cabling solutions.**"*

The information contained in this document is valid and correct at the time of issue. Leviton reserves the right to modify details without notice in light of subsequent standard/specification changes and ongoing technical developments.